

To: The Cal Poly Community

**From: Tomlinson Fort, Jr.
Provost**

**Subject: Cal Poly—Yesterday, Today and
Tomorrow**

Cal Poly Report

Special Edition

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This memorandum covers transmittal of the report of the Task Force to Study Reorganization of the University. As a preamble, I would like to state some impressions about higher education in the United States and California and the role of Cal Poly now and in the future.

The first impression is that in contrast to the situation over the past 15 years where nationally and on this campus, growth was the rule, we can look forward to a no-growth environment. Nationally, demographics tell us that the number of students who will attend college will decrease up until about 1990. At Cal Poly there are no plans for significant growth in size. Accompanying this no-growth situation is the reality of severe fiscal constraints on what we may do. Fiscal constraints in California were brought to everyone's attention several years ago with the passage of Proposition 13. Much has been written recently about the fact that faculty salaries have not kept pace with the increased cost of living. There is a severe shortage of up-to-date equipment and staff support. Finally, bureaucratic controls of our actions—both those brought on by law and those enforced by the system in which we operate—make freedom of action less easy to achieve than in the past.

To achieve excellence in a no-growth, resource-limited and bureaucratic environment requires careful planning and somewhat different strategies from those which are effective in other situations. The focus of the university must be sharply defined and the emphasis shifted from being bigger to being better in selected areas. In business this strategy is described as working to build a unique market niche. We must, concurrently, convince the people who allocate resources to us, and those who set the rules by which we must play, that we know what we are about, that we are doing it well, and that our graduates are both unique and important for California. If we can do this, we should, over time, gain both enhanced support and more freedom of action. If we try to be all things to all people, we can only sink to mediocrity.

Our situation in 1984 is in some ways similar to that in the depression years when Julian McPhee was first named President at Cal Poly. At that time, because of fiscal problems and low enrollment, there was even some question as to whether this institution would survive. President McPhee was able to sell the Legislature on the fact that Cal Poly was unique and that students who graduated from its applied professional pro-

grams were important to the future of California. This strategy was successful, and Cal Poly prospered and grew to the institution which we now know.

In 1984 Cal Poly is one of 19 campuses within The California State University. It is the most popular campus in terms of student demand. Students and faculty want to come here for well-defined reasons. The first is our continuing emphasis on applied professional programs coupled with our hands-on philosophy and high degree of student involvement in the educational process. The second is our beautiful location in San Luis Obispo.

Our location will not change and will be a continuing asset. However, our focus and attitude toward education are things over which we have some control. A particular plus for us is that because many of our programs are oversubscribed or impacted, we have more opportunity than our sister institutions to determine our future.

This future, as defined in the Mission Statement, is well described by the two words "polytechnic university." We should continue to emphasize the applied fields of agriculture, architecture, engineering and business and a few unique programs outside these fields. We have a special opportunity to do innovative things in the area of teacher education which capitalize on the unique educational focus of our campus. All of the named programs have, or should have, a well-defined focus, strong interactions with the external professional community, and the objective of preparing Cal Poly graduates for useful careers in the world of work.

As we do this, we need students and faculty alike to participate in a university environment of the best sense. I here contrast "university" with "trade school." It is important that we be part of an ambiance of intellectual excitement where great ideas and appreciation of the world are discussed. To effect this ambiance is the special role of the liberal arts and sciences at a polytechnic university. It is a mission which supplements and enlarges on the often described service teaching role which involves so much faculty time and effort.

So, there should be two kinds of programs at Cal Poly—focused, externally and professionally oriented applied programs within agriculture, architecture, engineering, business and a few other selected areas; and support programs in the liberal arts and sciences which make us a university. Programs which do not fall

into either of these categories should be de-emphasized and perhaps phased out. This is not to say that these other programs are not important and that they should not be taught elsewhere. It is simply to say that they are not appropriate for a polytechnic university striving for excellence in times of external resource constraints.

Cal Poly's instructional programs are classically organized as academic departments. Faculty within a given department usually share a similar academic background, participate in development and implementation of the same academic curriculum, and identify with the same discipline. Faculty in the applied departments also (usually) share identification with professionals outside the university, in a special industry. This latter identification is a traditional strength and should be preserved. However, a price is paid. The number of such disciplines and, correspondingly, the number of Cal Poly departments, is large. In some instructional schools the number of departments is so large that the span of control of the dean's office is stretched beyond reasonable limits. This fact argues for consideration of the concept of clustering of similar departments/programs so as to provide effective coordination of activities. Whether clustering is done or not, departments with similar focus should be grouped within the same school so that all possible synergisms and efficiencies are achieved and sympathetic support from the dean's office is assured.

Some programs at Cal Poly have ties to more than one major focus area or school. The Task Force has spent a great deal of time debating optimum alignments. Input provided by the faculty has been most useful, and the recommendations which follow reflect its best analysis. It should be emphasized that placement within a given school carries a strong inference about future program directions. The Task Force recommends establishment of coordinating councils to effect interdepartment and interschool coordination.

There has been some tendency, in the past, for departments in the professional areas to develop special courses for their majors which are better taught elsewhere. This practice is inefficient and not in the best interest of student education. Subject-specific

courses in areas generally covered by the support departments should be limited to upper division courses based on core material taught by faculty with specific expertise in that area. It should be the responsibility of deans in the professional schools to ensure that this occurs. Faculty resources need to be focused and conserved.

There remains the question of what is the optimum size for programs at Cal Poly. There are several considerations. One is our historical emphasis which has been to place approximately two-thirds of our student majors in the applied professional areas. This emphasis should continue, but this should not imply that every program within these areas is good or should remain at its present size. Other factors which must be considered include market demand, program uniqueness, faculty interest and expertise, facilities, program cost, and the number of faculty and students which constitute a "critical mass." Within the support areas, prime considerations include judgment about whether contributions to campus ambiance justify a particular program size. For both applied and support areas, it is better in my view to have a smaller excellent program than a larger mediocre program.

Because response time in universities is slow, careful analysis and planning by academic leaders at every level of the university is critical and should be an ongoing process. The goals statements/strategic plans currently being developed by the instructional departments and schools should be of significant help as we look to the future. I am personally excited by this future. To quote Brutus's famous words:

"There is a tide in the affairs of men which, taken at the flood, leads on to fortune. Omitted, all the voyage of their life is bound in shallows and in misery."

Our flood tide is now, but we must take it. We cannot allow past successes to lead to complacency about the future.

Conclusion for

Task Force Recommendations on University Organization

Organization of Instructional Schools

An organization chart which shows a suggested new alignment of academic departments at Cal Poly is attached. It should be emphasized that this organization chart does not indicate coordinating councils, possible departmental clusters, or changes which might occur as a result of studies recommended or currently in progress.

In contrast to earlier Task Force recommendations which would have reduced the number of instructional schools from seven to six, the chart suggests the continuation of seven schools. Of these seven, two schools

—Science and Mathematics, and Communicative Arts and Humanities—comprise the perceived core or support areas at Cal Poly. There was some discussion within the Task Force about merging these two schools into a core College of Arts and Sciences. However, the consensus was that the organizational unit thereby generated would be so large that it would be difficult to manage. Also, there are real differences in thinking between people with science backgrounds and people with arts backgrounds. It was not felt that significant fiscal economies would result from the merger. Therefore, it was decided to recommend the continuation of

the two schools as separate organizational units. The other schools are Agriculture, Architecture and Environmental Design, Business, Engineering and Technology, and Education and Applied Studies.

Decentralization and Management

The concepts of homogeneity and span of management are central to any reorganization approach. Homogeneity suggests that the organization of related activities in specific task groups or other identifiable groupings is a superior and more effective use of available resources to achieve stated objectives. Span of management (or control) is a concept that addresses the issue of managerial direction and integration; specifically, how many activities, functions and individuals can be effectively managed by a specific superior. Both of these concepts are obviously complex and have many dimensions and constraints that require specific and individual analysis for each organization and situation.

The Task Force believes that the management of resources and functions and the process of decision making could be improved by a specific and individual analysis of those organizations that appear to have an unusually large number of departments or programs or an unusually diverse amalgamation of activities. Therefore, the Task Force recommends that the Provost consult with those academic administrators whose organizations could benefit from such an analysis and establish a schedule of reviews to assist these administrators in reassessing their individual internal organization design and span of management.

Academic Coordination and Liaison

The relationship of various program objectives to the overall mission of the University requires the application of the best qualified resources and expertise available at Cal Poly. Polytechnic programs tend to combine general foundation subjects with specialized applications. The result of this tendency is often the establishment of similar courses and related academic activities in more than one department or school. In many instances, these courses are legitimate applications of general concepts to specialized programs; however, at present there is no official or uniform vehicle for coordinating such courses, programs, and activities between affected departments and schools.

To establish a formal, uniform method of coordinating related academic courses, programs, and activities between different departments and schools, the Task Force recommends that the Provost specifically identify such programs and establish a permanent Academic Coordination and Liaison Council for each identified program or subject grouping. These councils should be permanent, have representation from each program or subject involved, meet at regular designated times, and be headed by a chairperson who serves for a specified term. The specific modus operandi of each council should be developed by the Provost in cooperation with the university departments and schools involved since the specific objectives of

each different program must be incorporated into the composition of each council.

The Task Force believes that this approach will improve the interaction, cooperation, and integration of resources, curricula, and faculty in closely related disciplines and programs.

School of Agriculture

The Task Force recommends the merger of the Dietetics and Food Administration sections of the Home Economics Department with the Food Science Department within the School of Agriculture. Some faculty who are currently part of the Home Economics Department concentrate on Dietetics and Food Administration. Since the Food Science Department is part of the School of Agriculture, there is merit in bringing these faculty closer together. The Food Science faculty concentrating on Food Processing would then have additional opportunities to work with the faculty teaching the next step in the food chain and vice versa.

It is also recommended that the current Natural Resources Management Department be split. This department currently has four curricular options: Environmental Services, Fisheries and Wildlife Management, Forest Resources Management, and Parks and Outdoor Recreation. The largest number of faculty have interests in forestry, and a new major program in Forest Resources has been proposed. If the proposal is approved, the Task Force recommends that the name of the department be changed to Forest Resources. Concurrently, the Fisheries and Wildlife Management program and faculty should be moved to Biological Sciences. This move would allow development of a unified focus for Forest Resources and concurrently strengthen the wildlife program which is already a part of the Biological Sciences Department. It is recommended that the Environmental Services and Parks and Outdoor Recreation options within this department be phased out. Faculty currently associated with these programs should be moved to places where they can strengthen other focused programs at Cal Poly.

School of Architecture and Environmental Design

No changes are suggested for departments within this school, though participation in coordinating councils to be established is strongly recommended. In particular, the ties of Architectural Engineering to other engineering programs, duplication of some structural engineering courses between Architectural Engineering and Civil Engineering, and the needs of students in Construction and City and Regional Planning for courses in business and management need to be considered.

School of Business

Restrictions imposed by the accreditation requirements of the American Assembly of Collegiate Schools of Business make addition of other departments to the present School of Business inadvisable. However, courses in Accounting, Business Administration, Management, and Economics are important for a large number of applied majors at Cal Poly. The Business School should work with these other programs to establish meaningful course sequences for them. The establishment of a management/business coordinating council is recommended.

School of Communicative Arts and Humanities

The Task Force recommends the establishment of a Performing Arts Department which should include Music faculty from the current Music Department, Dance faculty from the current Physical Education Department, Drama faculty from the current Speech Communication Department, and Theatre staff. The proposed new department would coordinate all of the performing arts entities in the administrative areas of events scheduling, facility planning, and curriculum design. This centralized administration process would help eliminate duplication of efforts and provide consistency and efficiency in the various performing arts programs. It would promote interaction between the Performing Arts faculty and the Performing Arts as a single entity on campus. The Task Force does not believe that the merger of the Performing Arts Department should hinder any of the disciplines involved in seeking a specific degree program for itself. In addition, the Task Force expects each discipline within this new department to continue its service function at the University.

School of Engineering and Technology

The Task Force understands that a School of Engineering and Technology committee is beginning a study of the organizational issue concerning engineering technology addressed in our earlier report. Since this study has not yet been completed, the Task Force repeats here the statements contained in its earlier report.

There are two different organizational structures used to house Engineering Technology programs. Some engineering schools group them directly with the corresponding engineering departments while others have a separate department of engineering technology.

Cal Poly's engineering technology program was formed as an independent department and is still structured that way today. The increasingly tight budget constraints and high enrollments in engineering have led some of those in the Cal Poly community to question the advisability of continuing with the present structure.

Merging the engineering technology programs with their parent engineering programs might reduce

laboratory duplication, improve program identity, increase communication between faculty teaching in related areas, ease the transfer of students between related engineering and engineering technology programs and make it possible to utilize the engineering technology and engineering faculty in a more efficient manner. On the other hand, there is concern that the engineering technology programs would die if they were absorbed in their parent engineering departments, that ET students cannot efficiently utilize the same laboratories as the Engineering students, and that the differences between engineering faculty credentials and the credentials of engineering technology faculty could cause hardship for some faculty members in the engineering technology programs.

The programs involved in this issue are highly technical and are all located in a single school that has been active in reorganization on its own. Therefore, the Reorganization Task Force believes that this organizational question should be addressed first by the School of Engineering and Technology before a decision is made. The Task Force thus recommends that the faculty and administration of the School of Engineering and Technology review the present organizational structure of the engineering technology programs and consider the possibility of moving the engineering technology programs into the parent engineering programs.

In recent weeks the School of Engineering and Technology has suggested that the Computer Science faculty move to the School of Engineering and Technology and there develop computer and software engineering programs jointly with the Electronic and Electrical Engineering Department. The Task Force encourages the Computer Science faculty and the Electronic and Electrical Engineering Department to continue the discussions that have begun.

In addition to discussions with the Electronic and Electrical Engineering Department on resources and program content for these proposed new engineering programs, the Computer Science faculty should decide in what direction it wishes to focus in the future. If it would prefer to move in the direction of applied professional programs such as computer and software engineering, then it should move to the School of Engineering and Technology. If this were done, the School of Engineering and Technology would have to assume responsibility for computer literacy on campus. On the other hand, if the faculty sees itself moving in the direction of a broadly based computer science program, it would be best to stay in the School of Science and Mathematics. The Task Force does believe that if computer engineering and software engineering programs are started at Cal Poly, they should be housed within the School of Engineering and Technology even if Computer Science decides to stay in the School of Science and Mathematics. A decision on this issue should be reached before the end of this academic year.

At the present time, basic engineering mechanics courses are taught in both the School of Engineering

and Technology and the School of Architecture and Environmental Design. In addition, the relatively young Civil Engineering program on this campus should develop strength in the structural analysis area which augments and extends the structural analysis already present in Architectural Engineering. There is, thus, already duplication in this area and danger of more. Consequently, the Task Force recommends that a Coordinating Council for Engineering Mechanics and Structures be established by the Provost. This Council should include representation from the Aeronautical/Mechanical Engineering Department, Agricultural Engineering Department, Architectural Engineering Department, and the Civil Engineering Department.

School of Education and Applied Studies

The Task Force recommends that a School of Education and Applied Studies be formed consisting of Education, Physical Education, Psychology, Child Development, Graphic Communications, Home Economics, Industrial Technology, Journalism, and Military Science, and a new department be formed with faculty from Psychology, Child Development, and Counseling. The existing Liberal Studies program should be contained in this school. The rationale for the makeup of the School and its two major components—Education and Applied Studies—derives from a variety of factors: the history of particular programs at Cal Poly, the role of non-polytechnic programs in a polytechnic university, the articulation of Cal Poly programs with changing and evolving needs of the broader society, and the organizational “fit” of specific departments within specific schools.

It is a propitious time for Education to be a central part of a school at Cal Poly. The quality of schooling in an increasingly technological age is the focus of national attention. Commissions and legislatures advocate improvement, and Chancellor Reynolds identifies that goal as an important direction of The CSU system. The Task Force believes that the present departments of Education, Physical Education, and Psychology, along with the Child Development faculty and the Liberal Studies program, are a viable combination of traditionally interrelated units with significant potential for strengthening present programs and evolving new ones which cut across present departmental boundaries. The Task Force believes one such cluster of common professional and program interests involves faculty in Child Development, Psychology, and Education's Counseling and Guidance emphasis, relating in particular to human services as applied to public agencies. The Task Force here emphasizes the significance of common professional interests across traditional departmental boundaries. It recognizes the organizational necessity of the departmental structure, but hopes the institution of a new school will serve to effect more fluidity across traditional boundaries.

All the units in the Education component of this new school come from the present School of Human Development and Education. Those in Applied Studies

come from four different schools: Graphic Communications and Journalism from Communicative Arts and Humanities, Industrial Technology from Engineering and Technology, Home Economics from Human Development and Education, and Military Science from Science and Mathematics. In its first report, the Task Force recommended that most of the above departments be brought together in a Professional Studies component and located in the School of Business. Issues involving accreditation and organizational fit were deemed to be too serious to proceed with that proposal. The Task Force believes the School of Education and Applied Studies will provide ample opportunity for the departments involved to carry out—or redefine as needed—their role in the University. It also believes that Applied Studies is a workable linking concept for these diverse departments, one which reflects common interests and which is appropriate to the Cal Poly tradition.

Each department in Applied Studies also comes to this component through particular circumstances and history.

Home Economics

The existing Home Economics curriculum is a general program with curricular concentrations in the following areas:

1. clothing, textiles, and merchandising;
2. home management;
3. family finance/consumer education;
4. housing, home furnishings and interior design;
5. foods; and
6. vocational home economics education.

The Task Force feels that rapid social and technological change make such a general program no longer appropriate for Cal Poly. The Task Force calls on the Home Economics faculty to narrow their objectives in order to concentrate their resources on a more definite focus.

Location of Home Economics in Applied Studies provides the opportunity for the consideration of a variety of realistic alternatives. Further, the Task Force feels that the viability of Home Economics will depend heavily on the ability of its faculty to develop strong professional relationships with faculty in other schools such as Business, Architecture and Environmental Design, and Agriculture.

Physical Education

The Task Force's first report stated: “Decisions concerning the role of this department must be made before it is placed in a school.” The Task Force feels that the Physical Education Department provides valuable service courses, but that the Physical Education major requires reassessment. The Recreational Administration program's relationship to the mission and goals of Cal Poly is tenuous and needs redefinition.

Journalism and Graphic Communications

Journalism and Graphic Communications seem much more oriented to applied and professional concerns than do the other departments within the School

of Communicative Arts and Humanities and would, consequently, be more appropriately placed with other applied and professional degree programs in the School of Education and Applied Studies.

Industrial Technology and Military Science

Industrial Technology and Military Science are also departments whose specific focus on an area of applied interests connects them in a viable way with the School of Education and Applied Studies.

School of Science and Mathematics

The changes recommended for the School of Science and Mathematics are the addition of the Fisheries and Wildlife Program to the Biological Sciences Department, the move of Military Science to the School of Education and Applied Studies, and the possible shift of the Computer Science faculty and programs to the School of Engineering and Technology. If this latter shift is implemented, the Science and Mathematics

faculty and administration should consider what the optimum alignment of Statistics faculty and programs should be.

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Proposed Academic Organization of Cal Poly

